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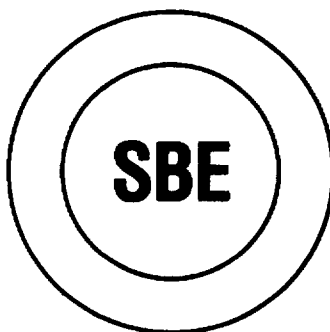
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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

**Comments of the
Society of Broadcast Engineers, Inc.**

ET Docket 98-206

**NGSO FSS Systems
Operating in the
13 GHz TV BAS Band**



March 2, 1999

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SOCIETY OF BROADCAST ENGINEERS, INC.
Indianapolis, Indiana

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)

Amendment of Parts 2 and 25 of the)
Commission's Rules to Permit Operation)
of NGSO FSS Systems Co-Frequency with)
GSO and Terrestrial Systems in the Ku-)
Band Frequency Range)

and)
Amendment of the Commission's Rules)
to Authorize Subsidiary Terrestrial Use)
of the 12.2-12.7 GHz Band by Direct)
Broadcast Satellite Licensees and Their)
Affiliates)

ET Docket No. 98-206

To: The Commission

Comments of the Society of Broadcast Engineers, Inc.

The Society of Broadcast Engineers, Incorporated (SBE), the national association of broadcast engineers and technical communications professionals, with more than 5,000 members in the United States, hereby respectfully submits its comments in support of the above-captioned Notice of Proposed Rule Making ("NPRM") proposing to allow the use of terrestrial "Gateway" uplink stations in the 12.75-13.25 GHz band for communications with non-geostationary satellite orbit ("NGSO") satellites.

Prior SBE Comments

1. On October 8, 1997, SBE filed comments concerning the July 3, 1997, Petition for Rule Making and the associated application filed by Skybridge L.L.C. ("Skybridge"). SBE objected to the Skybridge petition and to the Skybridge application on the grounds that Gateway uplinks would be operating on the same frequencies as used by Television Broadcast Auxiliary Service ("TV BAS") stations, which operate in the 12.70-13.25 GHz band. Although SBE agreed that Gateway stations might be able to share this spectrum with fixed, point-to-point TV BAS links, with proper frequency coordination, no such sharing would be possible with TV Pickup stations because the locations of their receive ends are themselves mobile (*e.g.*, helicopter or blimp based receive locations) or utilize fixed receive sites but with remotely steerable, directional receiving antennas that can be aimed towards the temporary location of the 13 GHz TV Pickup transmitter. The most common such use is

for electronic news gathering (“ENG”), but TV Pickups are also used to cover sporting events as well.

2A. The 1997 SBE comments noted that the Skybridge Petition for Rulemaking and associated application indicated that only 30 Gateway uplink stations would be needed throughout the United States, that these uplinks would use antennas with 2.5-meter to 4.5-meter diameters, and that Gateways stations would be “sited and operated according to existing coordination techniques;” that is, Gateway stations would protect existing, co-channel and adjacent-channel TV BAS operations.

2B. The 1997 SBE filing took issue with the SkyBridge claim that the 13 GHz TV BAS band was “lightly used,” and pointed out that, to the contrary, in the top TV markets that band is heavily used.

Current SBE Comments

3. SBE is disappointed, but not particularly surprised, to find no reference to its comments in this instant NPRM. SBE is also disappointed at the short-shrift given in the NPRM to the problem of frequency sharing between Gateway uplinks and terrestrial 13 GHz TV BAS operations: a single paragraph (Paragraph 34) out of a 108-paragraph, 68-page NPRM.

4. Although the NPRM concludes that there is a need for 100-kilometer exclusion zones around the 50 most populated cities for Gateway receive sites (*i.e.*, downlinks) operating between 10.7 and 11.7 GHz, so as not to preclude refugee terrestrial point-to-point Private Operational Fixed Service (“POFS”) stations that must be relocated from the 2 GHz band to accommodate Personal Communications Services (“PCS”), the Commission tentatively concludes that no such exclusion zones are needed for Gateway stations uplinking in the 12.75–13.25 GHz band.

5A. SBE submits that exclusion zones are also needed for Gateway uplinks operating in the 13 GHz band proposed by SkyBridge, which overlaps more than 90% of 12.70–13.25 TV BAS band. This is because of the preclusive effect such Gateway uplinks will have on TV BAS links: in the vicinity of a Gateway uplink, SkyBridge will expect protection of all frequencies between 12.75–13.25 GHz. Therefore, unlike a newcomer TV BAS point-to-point station that only precludes at most three channels out of the 43 available 25-MHz wide TV BAS channels (*i.e.*, co-channel and the upper and lower adjacent channels), and then generally only in the direction of the transmitting antenna’s main beam, a Gateway station will preclude all channels in the band and over the entire range of angles the Gateway antenna will need use.

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Preclusions of this magnitude must not be allowed near the major population centers, where there is heavy use of 13 GHz TV BAS frequencies. Like some 2 GHz POFS licensees, broadcasters are also being forced to relocate some 2 GHz TV BAS links to higher bands, as a result of spectrum being reallocated to the Mobile Satellite Services ("MSS") by ET Docket 95-18.

5B. There is also a need to protect 13,150.0–13,212.5 MHz, which is reserved for TV Pickup operations on Channels A19, A20, B19, and B20. This can only be achieved by prohibiting Gateway Uplinks from operating on these four channels within 100 kilometers of the 50 most populated cities.

5C. Indeed, this may well turn out to be a moot point. Based on certain current experiences with other satellite proponents attempting to share spectrum in populous areas with BAS, proper coordination may well simply preclude the establishment of Gateway uplinks due to the inability to protect pre-existing BAS links and receive sites when all the cable television as well as the broadcast facilities are considered. It were not for the preclusive effects on future BAS links and on temporary operations, SBE might be content to simply let Skybridge waste its resources attempting to coordinate Gateway uplinks in populous areas, where Skybridge will discover that there are a large number of 13 GHz TV BAS and 13 GHz Cable Television Relay Service ("CARS") stations that must be protected.


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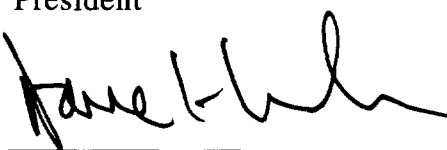
Summary

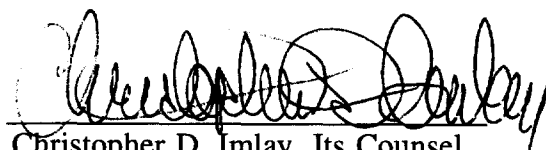
6. The concerns raised by SBE in 1997 have not gone away. Gateway uplinks must not be located within 100 kilometers of the top 50 population centers because of their ability to preclude operations over the entire 13 GHz TV BAS band, as opposed to just one or just a few channels. Operation of Gateway uplinks on the four 13 GHz TV BAS channels reserved for mobile (TV Pickup) operations must be flatly prohibited within 100 kilometers of the top 50 population centers.

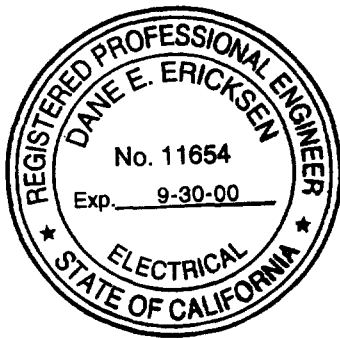
Respectfully submitted,

Society of Broadcast Engineers, Inc.

By 
Edward Miller, CPBE
President

By 
Dane E. Ericksen, P.E., CSRTE
Chairman, SBE FCC Liaison Committee

By 
Christopher D. Imlay, Its Counsel



March 2, 1999

Booth, Freret, Imlay & Tepper
5101 Wisconsin Avenue, NW, Suite 307
Washington, D.C. 20016
202/686-9600